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10/774,696	02/10/2004	David N. Franklin	005127.00269	7388

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EXAMINER
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HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/774,696

Applicant(s)

FRANKLIN ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,9,11-14,21 and 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,10,15-18,20,22,27-29 and 31 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 5, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cissel (USPN 3084940) in view of O'Meara (USPN 595494).

Regarding claim 1, Cissel discloses a golf club having a shaft **11** and a head **1** secured to the shaft wherein the head comprises a primary element **1** at least partially formed of a first material wherein the primary element defines a first surface and an opposite second surface wherein the first surface provides an area for engaging a golf ball, a cavity **12, 13, 14,** and **15** defined by a portion of the primary element that is of unitary construction wherein the cavity is positioned between the first surface and the second surface wherein at least a portion of the cavity extends in a direction that is substantially parallel to the first surface, and an insert **16** element formed of a second material and positioned within the cavity wherein the second material is different from the first material. Cissel notes that the insert is bonded by adhesive, but does not disclose the insert attached by depressions and protrusions. Applicant does not set forth why the depressions and protrusions are necessary in order to attain the invention. The protrusions and depression appear to be a form of securing means in which Cissel also

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discloses a securing means in the form of an adhesive. One having ordinary skill in the art would have found the depressions and protrusion to be an obvious matter of design choice being that the adhesive of Cissel performs equally as well and no criticality for the protrusions and depression have been expressed by the applicant. Alternatively, O'Meara discloses elements having protrusions and grooves for receiving the protrusions (See Entire Document). The protrusions allow for the elements to be fasten such that elements are anchored together (See the Entire Document). One would have found it obvious to employ depressions and protrusions, as taught by O'Meara, in order to secure two or more elements together.

Regarding claim 2, Cissel discloses the cavity and insert having a constant thickness in a direction extending between the first surface and second surface (See Figures 1-4).

Regarding claim 5, Cissel discloses the cavity extending through the upper surface of the primary element to expose the insert (See Figure 5).

Regarding claim 6, Cissel does not disclose the depression being on the upper surface. In view of Takeda, being that the depression appears to only facilitate attachment, one skill in the art would have concluded that the depression would be located at any position in which the insert is to be attached.

Regarding claim 10, Cissel discloses the insert having the same dimensions of that of the cavity (See Figures 1-4).

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2. Claims 8, 15-18, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cissel (USPN 3084940) in view O'Meara (USPN 595494) further in view of Rogers (USPN 4027885).

Regarding claim 8, Cissel in view of O'Meara does not disclose the club head made of metal. Rogers discloses a club head having a cavity and insert therein wherein the club head is made of metal and the insert is made of a polymer (See Entire Document). One having ordinary skill in the art would have found it obvious to have the club head made of metal and the insert made of a polymer, as taught by Rogers, in order to optimize the weight distribution desired for the club head.

Regarding claim 15, Cissel discloses a golf club having a shaft and a head secured to the shaft wherein the head comprises a primary element at least partially formed of a first material wherein the primary element defines a first surface and an opposite second surface wherein the first surface provides an area for engaging a golf ball, a cavity defined by a portion of the primary element that is of unitary construction wherein the cavity is positioned between the first surface and the second surface wherein at least a portion of the cavity extends in a direction that is substantially parallel to the first surface, and an insert element formed of a second material and positioned within the cavity wherein the second material is different from the first material. Cissel notes that the insert is bonded by adhesive, but does not disclose the insert attached by depressions and protrusions. Applicant does not set forth why the depressions and protrusions are necessary in order to attain the invention. The protrusions and depression appear to be a form of securing means in which Cissel also discloses a

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securing means in the form of an adhesive. One having ordinary skill in the art would have found the depressions and protrusion to be an obvious matter of design choice being that the adhesive of Cissel performs equally as well and no criticality for the protrusions and depression have been expressed by the applicant. Alternatively, O'Meara discloses elements having protrusions and grooves for receiving the protrusions (See Entire Document). The protrusions allow for the elements to be fasten such that elements are anchored together (See the Entire Document). One would have found it obvious to employ depressions and protrusions, as taught by O'Meara, in order to secure two or more elements together. Cissel does not disclose the club head made of metal. Rogers discloses a club head having a cavity and insert therein wherein the club head is made of metal and the insert is made of a polymer (See Entire Document). One having ordinary skill in the art would have found it obvious to have the club head made of metal and the insert made of a polymer, as taught by Rogers, in order to optimize the weight distribution desired for the club head.

Regarding claim 16, Cissel discloses the cavity and insert having a constant thickness in a direction extending between the first surface and second surface (See Figures 1-4).

Regarding claim 17, Cissel discloses the cavity extending through the upper surface of the primary element to expose the insert (See Figure 5).

Regarding claim 18, Cissel does not disclose the depression being on the upper surface. In view of Takeda, being that the depression appears to only facilitate

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attachment, one skill in the art would have concluded that the depression would be located at any position in which the insert is to be attached.

Regarding claim 20, Rogers discloses the metal material being steel.

Regarding claim 22, Cissel discloses the insert having the same dimensions of that of the cavity (See Figures 1-4).

3. Claims 1, 2, 5, 6, 8, 10, 15-18, 20, 22, 27-29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers (USPN 4027885) in view of O'Meara (USPN 595494).

Regarding claims 1, 8, 15, and 27, Rogers discloses a golf club having a shaft **12** and a head **14** secured to the shaft wherein the head comprises a primary element **14** at least partially formed of a first material (metal) wherein the primary element defines a first surface and an opposite second surface wherein the first surface provides an area for engaging a golf ball, a cavity **30** defined by a portion of the primary element that is of unitary construction wherein the cavity is positioned between the first surface and the second surface wherein at least a portion of the cavity extends in a direction that is substantially parallel to the first surface, and an insert element **34** formed of a second material (epoxy) and positioned within the cavity wherein the second material is different from the first material. Rogers notes that the insert is bonded by adhesive being that epoxy is an adhesive, but does not disclose the insert attached by depressions and protrusions. Applicant does not set forth why the depressions and protrusions are necessary in order to attain the invention. The protrusions and depression appear to be a form of securing means in which Rogers also discloses a securing means in the form

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of an adhesive. One having ordinary skill in the art would have found the depressions and protrusion to be an obvious matter of design choice being the adhesive of Rogers performs equally as well and no criticality for the protrusions and depression have been expressed by the applicant. Alternatively, O'Meara disclose a elements having protrusions and grooves for receiving the protrusions (See Entire Document). The protrusions allow for the elements to be fasten such that elements are anchored together (See the Entire Document). One would have found it obvious to employ depressions and protrusions, as taught by O'Meara, in order to secure two or more elements together.

Regarding claim 2, Rogers discloses the cavity and insert having a constant thickness in a direction extending between the first surface and second surface (See Figures 1 and 3).

Regarding claim 5, Rogers discloses the cavity extending through the upper surface of the primary element to expose the insert (See Figures 1 and 3).

Regarding claim 6, Rogers does not disclose the depression being on the upper surface. In view of Takeda, being that the depression appears to only facilitate attachment, one skill in the art would have concluded that the depression would be located at any position in which the insert is to be attached.

Regarding claim 10, Rogers discloses the insert having the same dimensions of that of the cavity (See Figures 1-4).



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Regarding claim 16, Rogers discloses the cavity and insert having a constant thickness in a direction extending between the first surface and second surface (See Figures 1 and 3).

Regarding claim 17, Rogers discloses the cavity extending through the upper surface of the primary element to expose the insert (See Figures 1 and 3).

Regarding claim 18, Rogers does not disclose the depression being on the upper surface. In view of Takeda, being that the depression appears to only facilitate attachment, one skill in the art would have concluded that the depression would be located at any position in which the insert is to be attached.

Regarding claim 20, Rogers discloses the metal material being steel.

Regarding claim 22, Rogers discloses the insert having the same dimensions of that of the cavity (See Figures 1 and 3).

Regarding claim 28, Rogers discloses milling the primary element.

Regarding claim 29, Rogers discloses casting the primary element in a mold.

Regarding claim 31. Rogers discloses molding the insert element by introducing the second material in a molten state into the cavity.

### ***Allowable Subject Matter***

Claim 30 is objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed 12/01/05 have been fully considered but they are not persuasive. Applicant argues the following:

(a) Cissel discloses a first surface of the primary element made of a material different from the rest of the primary element;

(b) Sissel in view of Meara does not teach adjustment of the center of gravity using depressions;

(c) Rogers does not disclose the primary element formed on one piece; and

(d) Rogers in view of Meara does not teach the adjustment of the center of gravity using depressions.

The examiner disagrees.

With respect to issue (a), Cissel shows a surface **4** on the face of the club head which is very well capable of engaging a golf ball. This surface is made of the same material as the rest of the club head and is made unitary with the rest of the club head (See Figures 1 and 5).

With respect to issue (b), The removal of material to lighten its weight is not new or unexpected. Cissel shows removal of material from the primary element to facilitate insertion of the insert. Cissel would inherently teach the adjustment of center of gravity due to the natural way as to how the club head is made. Furthermore, Cissel notes that the configuration of the club insert may be varied. The applicant uses the argument that the center of gravity is shifted upward if the depressions are located on the bottom of the club head. However, this is only true providing that no insert or an insert of lower density is inserted into the slot. Not all metals have densities greater than polymers. For instance

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a polymer such as Polytetrafluorethylene (PTFE) has a density of 2.14-2.20 and a metal such as Beryllium has a density of 1.85. This argument can only be validated if the applicant had claimed the type of metal and polymer. Because of this, the depression discloses by the applicant does nothing more than that inherently taught by Cissel, and therefore, only appear to serve as a means of attaching the insert to the primary element.

With respect to issue (c), does a unitary club head provide any performance different from a club head made of two pieces joined? Applicant notes that the primary element may be made unitary, or separate pieces, or separate piece comprising different materials. The applicant does not set forth any reason as to why any of the constructions have any benefit over the other. Economical feasibility would not suffice being that the same performance would be attained from the constructions. Rogers discloses the club head made of two pieces, however, the face plate and the club head body are made of the same material. Being such is the case, one would be lead to believe that the club head would perform the same whether it was made unitary or not. Also, as the applicant stated the club head is of unitary construction before the polymer is added thereto. Based on what the applicant has drawn from Rogers, this configuration does read on the language of claim 1 being that the primary element is of one piece before the addition of the polymer.

With respect to issue (d), this issue is similar to issue (b); therefore, see the above regarding issue (b).

For these reasons, the above rejection has been furnished.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH

Alvin A. Hunter, Jr.



**EUGENE KIM**  
**SUPERVISORY PATENT EXAMINER**